

City of Shakopee

Forestry Specifications Manual



SHAKOPEE

Adopted by:
Parks, Recreation, and Natural Resources Department
and Department of Public Works, 2009

Introduction

Authority: Pursuant to authority granted under Shakopee City Code Section 11.60, Subdivision 9- Tree Management Regulations, Section 10.70, Section 7.05, Section 7.18 and the review and assistance of the Environmental Advisory Committee (EAC), the following serves as the Forestry Specifications and Standards of Practice for the City of Shakopee, Minnesota, hereinafter referred to as the **Forestry Specifications Manual**.

Guideline: The guideline of the City of Shakopee's Tree Management Regulations is to regulate the planting, transplanting, maintenance, removal and protection of public trees and shrubs in the City in order to alleviate hazardous conditions which may result in injury to persons using the streets, sidewalks or other public property within the City. It also serves as a guideline for contractors planting, maintaining and removing trees and shrubs ordered by the City.

Function: The general responsibility of the Parks and Recreation Department and Department of Public Works is to maintain trees and shrubs located on all public properties, including, but not limited to, boulevards, terraces, medians, parks, and other public facilities and spaces. This involves all phases of Forestry work from planting through removal. These specifications are to serve as a standard for the planting and maintenance of all public trees by City employees. However, contractors or private individuals may reference these specifications to perform forestry work. In abiding by and enforcing these specifications, the Parks and Recreation Department, and Department of Public Works makes reasonable efforts towards the desired goal of maintaining a safe and aesthetically pleasing urban forest allowing it to provide the maximum benefit to the community. The Parks and Recreation Department and Department of Public Works must approve exceptions to these specifications. The Forestry Specifications Manual shall be adhered to at all times, but may be amended at any time that experience, new research, or laws indicate that improved methods or circumstances make it advisable, and only then with the advise and assistance of the Shakopee Environmental Advisory Committee.

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Tree Planting Standards

Size: All trees planted along the terraces and within public spaces must be of sufficient size to absorb the abuse and conditions common to trees planted in urban areas. The minimum allowable size for shade trees and ornamental trees is 1 1/4" caliper. Tree caliper shall be measured six inches above the ground to the nearest 1/4".

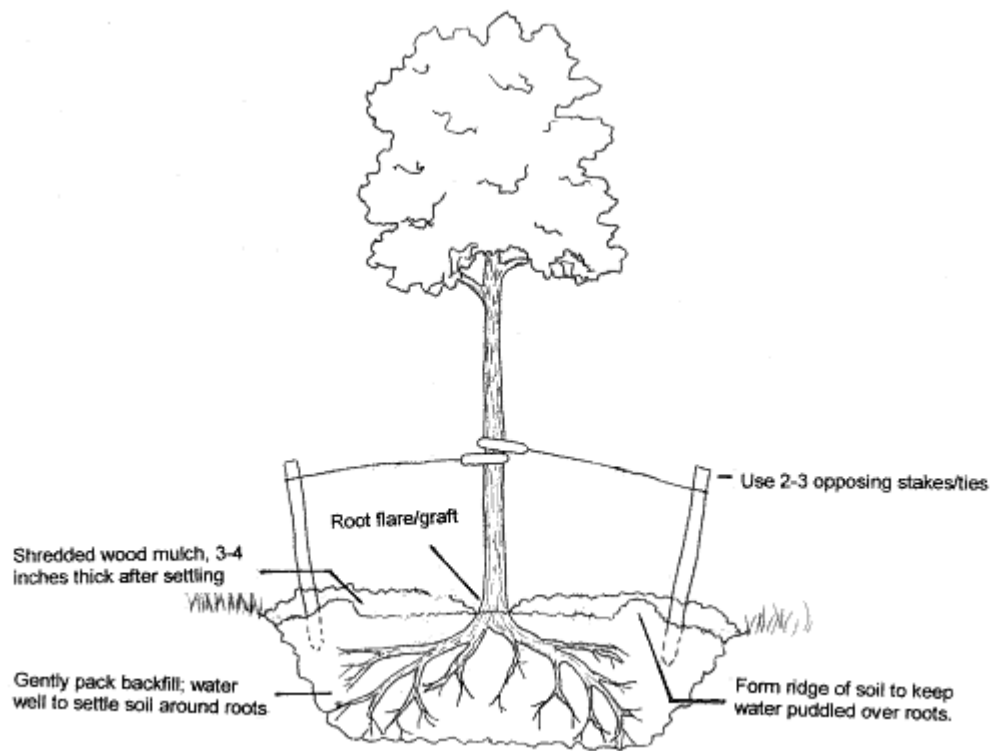
Condition: Unless otherwise specified, all trees shall conform to the American Nursery and Landscape Association's *American Standard for Nursery Stock*, (Z60.1-2004). Each tree chosen for planting shall be a high-quality, healthy tree with evidence of vigorous growth during the previous year. All trees shall have a comparatively straight, single trunk, well-developed leaders and crown, and the roots shall not only be characteristic of the species, cultivar or variety, but also exhibit evidence of proper nursery pruning practices. Ornamental trees may be multiple-stemmed if they can be pruned for adequate clearance. At the time of planting, all trees must have a full healthy crown, be free of mechanical injuries and display no other objectionable features that will affect the future form, health, and beauty of the tree.

Planting Methods:

Planting a Bare Root Tree

Bare root trees are usually available only in early spring. These trees are dug from nurseries in late fall, and all soil is removed from their roots. They are held in climate controlled coolers over winter and sold bare root in spring. Bare root trees typically have a maximum 1 1/2-inch trunk diameter.

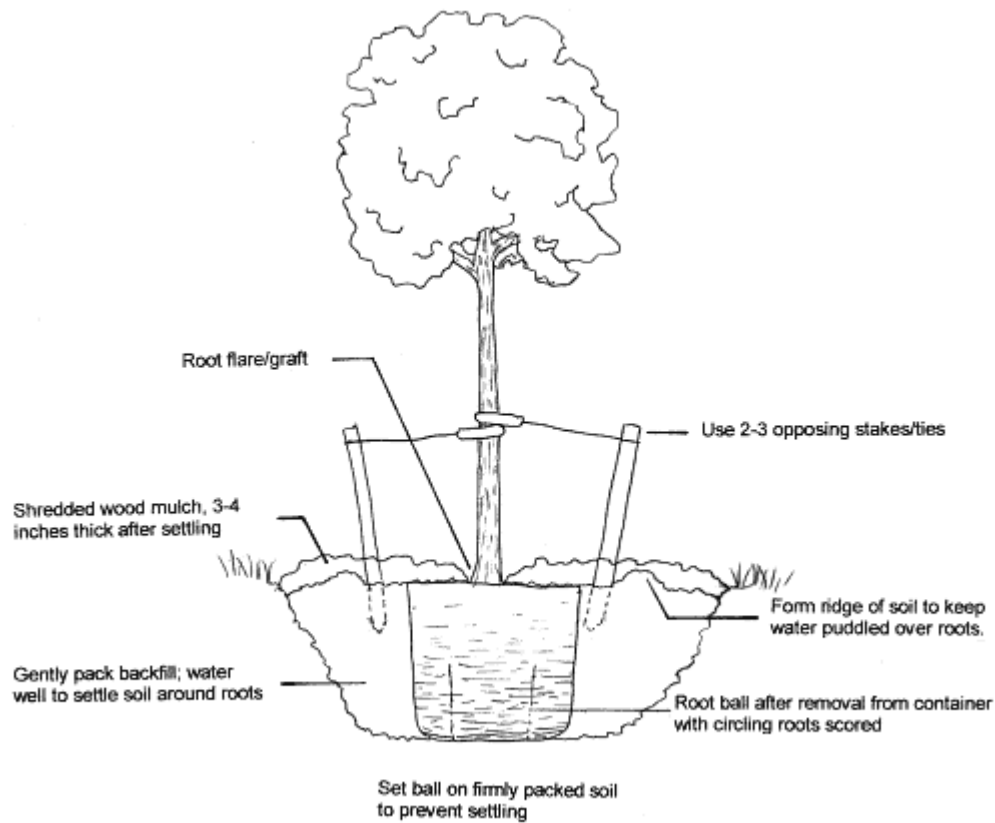
While bare root trees can be very economical, they can be highly perishable and it is very important that the roots never be allowed to dry out. When planting many bare root trees (five to ten or more), they should be ordered from the nursery ahead of time. Bare root trees are usually available only for a short time in spring (usually at the end of April or beginning of May in this area) so there is little flexibility for planting which is available with containerized or balled and burlapped trees.



How to plant a bare root tree

Planting a Container-Grown Tree

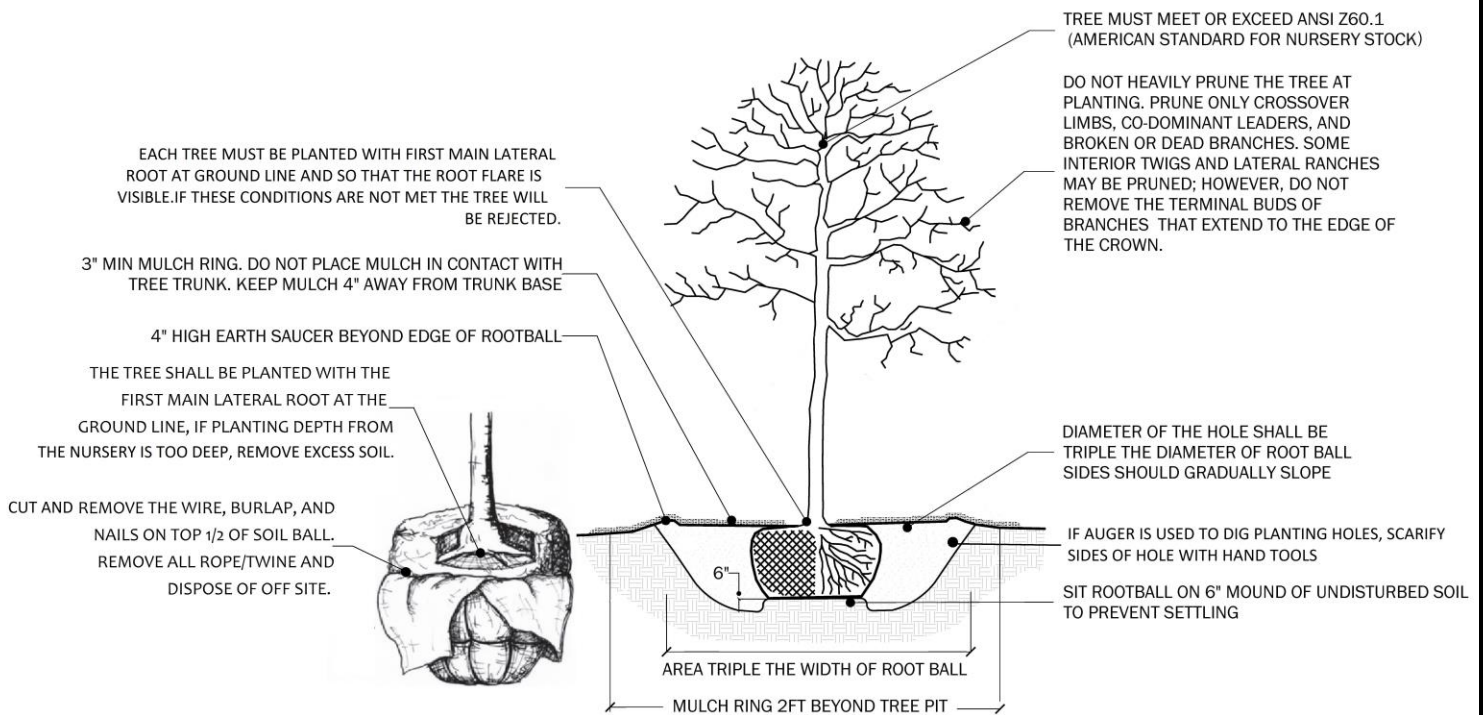
Container-grown trees are sold in a variety of different sized pots. The pots may be plastic, paper maché, or wooden “bushel baskets.” In some cases, the tree had been growing in the container since it was a seedling; in others, it was planted in the container as a bare root tree. These trees are available throughout the growing season, and can be held in the containers for quite some time, allowing for more flexibility in planting.



How to plant a container-grown tree

Planting a Balled and Burlapped Tree

Balled and burlapped trees are trees that are dug with the soil around the roots (root ball) intact. That root ball is wrapped in burlap and enclosed in a wire basket which is tied around the trunk. Balled and burlapped trees cost more than bare root stock, but they are typically available throughout the growing season. Larger diameter trees are usually sold this way rather than as bare root or containerized. The root ball of a balled and burlapped trees can dry out very easily, so when choosing a tree, make sure that it is well mulched and does not look dry or otherwise stressed, be certain to keep the root ball moist until it is planted.



How to plant a B B tree

Location: All street trees shall be planted midway between the curb and sidewalk (or where the sidewalk would be if there is no sidewalk), unless in the opinion of the Parks and Recreation Department or Department of Public Works, there is sufficient reason to plant the trees off-center.

To allow for maintenance, minimize infrastructure damage and promote safety, trees shall be planted using the following guidelines. ***The Parks and Recreation Department or Department of Public Works may make exceptions to these guidelines when circumstances warrant and public safety is not threatened.***

1. 50' from an approach corner
2. 35' from a non-approach corner
3. 20' from a street light
4. 10' from a driveway, utility pole, or fire hydrant
5. 10' from a Sanitary Sewer service, water main, or other underground utilities
6. 5' from a gas valve, water valve, or carriage walk
7. 3' from the curb

Easement Areas: Pursuant to Section 7.18 of the City Code, no trees, shrubs or bushes are allowed to be planted or located within a City easement area, right-of-way or sight triangle. In the event that the City grants permission to locate a tree, shrub or bush in its easement area or on its property, the following standards shall apply:

1. No tree shrub or bush shall be planted or allowed to be located in City-owned or managed property or within a City conservation easement area, sight triangle or right of way without first obtaining a permit from the City. The permit application in Appendix D is available at City Hall or on the City's website: www.ci.shakopee.mn.us. The permit must be reviewed and approved by the City's Public Works Department and Park, Recreation, and Natural Resources Department
2. Under no circumstances will the City issue a permit to plant or allow a tree, shrub or bush in any sidewalk or trail easement.
3. Under no circumstances will the City issue a permit to plant or allow a tree to be placed directly on top of a water, sewer or other utility service line. The City will not issue a permit to plant or allow any trees, shrubs, or bushes to be placed within two feet of the side and rear of any utility transformers, cabinets, or hydrants, or within eight feet of the front of any utility transformers, cabinets, or hydrants.
4. Under no circumstances will the City issue a permit to plant or allow a tree to be placed within a lot's front drainage and utility easements, street side easements of corner lots, or maintenance access easements. The City may permit trees to be placed within a lot's side and rear lot line easements if the easements do not contain any underground utilities and the tree does not obstruct drainage.

Sight Triangle: The City will not issue a permit to allow a tree, shrub or bush to be planted or located within a sight triangle, with the exception of low growing shrubs that are less than three feet high and trees that have branches that are able to be trimmed so that they are higher than nine feet from the ground.

Right-of-Way: The City will not allow trees to be planted in the City right-of-way without the approval of a Tree, Shrub and Bush Permit. Trees planted in the right-of-way without a permit will be removed.

Spacing: Future maintenance problems can be minimized by careful and thoughtful placement of trees. Spacing of trees is a function of local site conditions, the species or cultivar used, and their mature height, spread and form. A safe minimum spacing between trees is a distance equal to the width of the species at maturity. All Shakopee trees shall be planted a minimum 30 feet from another tree.

Recommended Street Trees: Appendix A contains the lists of tree species approved for planting in the City based upon their recommended planting sites. The Environmental Advisory Committee shall review, at least once every three years, the trees listed in these appendices to determine whether any species, cultivars or varieties should be added or removed from the list.

Only small-growing trees shall be planted under overhead secondary or primary electrical distribution lines. Trees planted to the side of power lines shall be carefully selected for mature habit to minimize future conflicts.

Conditional Plantings: Conifers may be planted on city right of way provided the trunk is no closer than 14 feet to the back of the curb or 7 feet behind the existing public sidewalk. Also, it may not be closer than 35 feet from the non – approach corner of the intersection of 2 right of way lines and no closer than 20 feet to the edge of the nearest driveway.

Undesirable Street Trees: Unacceptable species or their varieties as listed in Appendix B shall not be planted on City property, except in special locations where, because of characteristics of adaptability or landscape effect, they can be used advantageously. Their lack of suitability is based upon objectionable growth habits, fruiting habits, form, susceptibility to serious diseases, propensity to incur storm damage, and other limitations. The limitations listed for each tree or species are the more serious problems encountered locally.

Maintenance of Newly Planted Trees

Pruning: No pruning should occur at the time of planting except to remove dead or broken branches. Unnecessary pruning at this time may reduce the amount of stored energy the plant holds and may stress the tree. A pruning schedule may be started two years after planting. If residents wish to prune a boulevard tree, written City approval is required and the pruning must be completed by a City approved Certified Arborist.

The following are recommended guidelines to follow for the trimming of new and existing trees:

Trimming of Trees (shade)

Shade Sizes	10 Year Period	Ornamental
2" – 6"	3 times	1 - 3
7" – 12"	3 times	4 - 7
13" – 20"	2 times	8 – 12
21" – 29"	2 times	13 – 18
30" – 38"	1 time	19 – 26
39" +	1 time	26 +

Planting Guidelines

The following standards shall apply to trees and shrubs in City owned property such as right-of-way and park and open space. In addition, the standards shall apply to private property trees during a state of emergency declared by the Mayor or City Council.

Restrictions to Planting Trees:

The following are general restrictions to planting trees within the City of Shakopee:

1. Have underground utilities located.
2. Do not plant trees within City owned property such as park and open space without prior written approval. These trees will become the property of the City.
3. Do not plant trees within City owned right-of-way without prior written approval. These trees will become the property of the City and may be removed as determined by the City.
4. Do not plant trees within drainage and utility easements without prior written approval. Future City improvement projects may require the removal of these trees.
5. Do not plant trees within Conservation Easements without prior written approval from the City.
6. Trees are to be planted a minimum of 5 feet from all property lines. The City recommends planting trees 10 feet from all property lines.

Reconstructed and Widened Streets: When trees are removed in preparation for reconstruction or widening of any established street, new trees will be planted provided there is adequate space in the terrace to support tree growth. The expense of this planting shall be borne by the City and incorporated into the project. The Department of Public Works shall determine the location and species of these trees. The amount of replacement trees required will be based on the removed Tree's Natural Resource Corridor Priority Ranking.

New Subdivisions: In the development of new subdivisions or commercial property, the Planning Commission will review landscape plans provided by the developer and may require that, street trees be planted or payment in lieu of planting be made for any of the abutting streets, parking lots, parks and other public places before development takes place, costs are based on current nursery pricing for 2" balled and burlapped trees.

The developer will submit a tree removal plan that shows exact trees to be removed. The developer will also provide a plan specifying methods of protecting trees not listed for removal.

Note: It is a violation for any person to perform work under a permit contrary to the permit terms and provisions of City Code Chapter 11, Section 11.60, Subdivision 9. A permit violator shall be responsible for the repair and replacement of any tree damaged or destroyed due to defective work or non compliance with City Code Chapter 11.60.9 for (2) full growing seasons following completion or performance of work.

Unimproved Streets: Trees shall not be planted in the terrace of unimproved streets or where no curb and gutter exists without approval from the Department of Public Works.

Pruning Standards

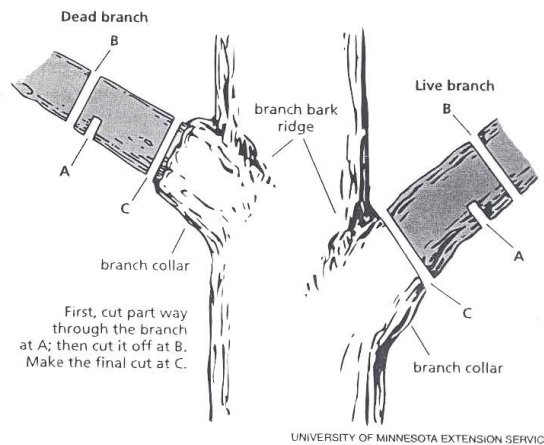


Figure 1 Proper Pruning Techniques – 3 Cut Method

Pruning of Oaks: In an effort to minimize the spread of Oak Wilt (*Ceratocystis fagacearum*), Shakopee City Code Chapter 11, Section 11.60, Subdivision 9.E.4 states that the pruning of Oak trees or collateral damage to Oak trees from adjacent tree removal shall be avoided from April 1st thru July 31st which is the most susceptible period of infection, except by written permission of City personnel. Trees damaged by storms or other causes during this time may be treated with a nontoxic wound dressing. Final pruning cuts should be made in dormant season to remove stub with wound dressing.

Tree Removal Guideline

General: As specified in the City of Shakopee ordinances, the only persons who may authorize the planting or removal of a City tree is either the Parks and Recreation Director or the Public Works Superintendent.

Any person who desires to remove any Tree on any parcel of land may be required to submit a Tree Preservation Plan to the City and must demonstrate that there are no feasible or prudent alternatives to removing any tree.

Control Areas

In areas outside of the control areas, the diseased tree and shade tree pest program will be strictly enforced by the City only in those areas within ¼ mile of non-farm homesteads.

Public Trees

The City will remove trees located on public property which contain a shade tree disease or shade tree pest which cause the trees to die. The City will remove these trees as quickly as possible. This includes trees located on street boulevards and in City park areas. Anyone finding a tree on public property which appears to be diseased or infested but which has not been marked for removal should report the tree to the City.

Private Trees

The removal of trees with a shade tree disease or shade tree pest from private property is the responsibility of the property owner, however whenever the Tree Inspector finds with reasonable certainty that the infection or danger of infection, exists in any tree or wood on any private property, the Tree Inspector shall proceed as follows:

A Property Owner Removal

1. The Tree Inspector shall notify in writing the owner of record or occupant of the premises that a public nuisance exists and order that the nuisance be terminated or abated. The notice may be given in person or by mail. Failure of any party to receive the mail does not invalidate the service of the notice. A copy of the notice will be filed with the Parks, Recreation and Natural Resources Department.
2. The notice of abatement shall state that unless the public nuisance is abated by the owner or occupant, it will be abated by the City at the expense of the owner or occupant. The notice shall specify the control measures to be taken to abate the nuisance, and provide a reasonable amount of time to abate the nuisance.
3. If the control measures prescribed in the notice of abatement are not complied with within the time provided by the notice or any additional time granted, the Tree Inspector or designated person shall have the authority to enter the property, and carry out abatement in accordance with the notice of abatement.
4. If the Tree Inspector determines that the danger if infection or infestation to other shade trees is imminent, and delay in control measures may put public health, safety, or welfare in immediate danger, the tree inspector may provide for abatement without following subdivision 7.A. or 8. The Tree Inspector must reasonably attempt to notify the owner or occupant of the affected property of the intended action and any cost recovery by the next regularly scheduled Council meeting.

B.

Reforestation

The City will, to the extent possible under the current budget and/or project plans, attempt to replace boulevard and park trees removed because of shade tree diseases or shade tree pests by planting new trees.

Stump Removal – Public Trees

Once a year the City will bid out and hire a contractor to grind or remove all stumps remaining on boulevards or other public areas. The City will not remove or grind out stumps for private trees, but rather this is the property owner's responsibility.

Shakopee Tree and Shrub Maintenance Standards

The following standards shall apply to trees and shrubs in City owned property such as right-of-way and park and open space. In addition, the standards shall apply to private property trees during a state of emergency declared by the Mayor or City Council.

Boulevard Trees and Public Lands

The City of Shakopee will maintain all boulevard trees and public trees so as to not cause a hazard by trimming branches, pruning, etc. Trees that create hazards are those that are blocking street signs, traffic control devices or street lighting or have low hanging branches that cause hazards to vehicles or trucks such as garbage trucks, snowplows, fire trucks, etc. The City will maintain and trim branches so that there is a minimum of a nine foot clearance over sidewalks and a fifteen foot clearance over streets and alleys.

Duties of Private Property Owners

Any trees and shrubs that are located on private property, but overhang public rights-of-way such as alleys, sidewalks, trails, or streets, shall be trimmed to the same standards above by the property owner. If the property owner does not trim the trees, the City shall notify the property owner in writing. If the trees are not trimmed within seven calendar days of receiving notice, the City will trim the trees with City crews at current hourly rates with a minimum one hour fee or with a City contractor and bill the property owner for the work. In no case will the City trim private trees that are not overhanging onto public property.

Storm Damage

Any public trees that are damaged by storms will be maintained by the City, including picking up any tree branches that were blown down. The City will, to the extent possible under the current budget, attempt to replace public trees removed because of storm damage.

Any private trees damaged or that have branches blown down due to a storm shall be maintained or disposed of by the property owner, unless the City Council or Mayor declares a state of emergency. In that case, the City will provide assistance in picking up and disposing of storm damaged trees and branches for a specific length of time as determined by the Public Works Director. In these instances, the following requirements should be adhered to:

- a. The property owner should notify the City at least three days in advance of trees/branches needing pick up.
- b. Large tree pieces must be cut to 6 feet in length or less.

- c. Branches must be piled as follows:
 - 1. All stems at the same end.
 - 2. Stems pointing in the same direction as the flow of traffic.
 - 3. Laid on the ground parallel to the curb.
- d. Trees and branches must be placed next to the curb, or edge of the street (not in the street and if possible, not on the sidewalk).
- e. City crews will not enter private property to pick up trees or branches.

Miscellaneous Maintenance Practices

Stump Removal: The stumps of all removed trees shall be ground to a depth of at least eight inches (8") below the surrounding ground level. The excess stump chips shall be removed, the hole filled with clean topsoil, and the site graded and seeded. Watering of newly established grass will then be the responsibility of the adjacent property owner. All costs associated with stump removal shall be borne by whoever bears the cost of tree removal.

Gopher State One and Local Utilities

Upon issuance of a permit, a person planting an item shall have underground utilities located prior to digging or planting by calling Gopher State One at 651-454-0002. Proper marking of excavation sites prior to calling ensures that no resident, employee or utility are at risk from damage to unmarked utilities. Work within 18” of any underground utility requires hand digging to expose the facility and prevent unnecessary damage to utilities. Private utilities (i.e. irrigation, pet fences, private lighting etc.) located within the public right-of-way shall be marked by the adjacent property owner at their expense. The City cannot assume responsibility for any damage as a result of unmarked private utilities in the right of way.

References

American National Standards Institute. *American National Standards for Forestry Operations-Pruning, Repairing, Maintaining and Removing Trees, and Cutting Brush-Safety Requirements* (Z133.1-2000). International Society of Arboriculture, Champaign, IL.

American National Standards Institute. *American Standard for Nursery Stock*, (Z60.1-2004). American Nursery and Landscape Association, Washington D.C..

American National Standards Institute. *American National Standards for Tree Care Operations-Tree, Shrub, and Other Woody Plant Maintenance-Standard Practices (Pruning)* (A300, Part 1-2001). National Arborist Association, Manchester, NH.

American National Standards Institute. *American National Standards for Tree Care Operations-Tree, Shrub, and Other Woody Plant Maintenance-Standard Practices (Fertilization)* (A300, Part 2-1998). National Arborist Association, Manchester, NH.

American National Standards Institute. *American National Standards for Tree Care Operations-Tree, Shrub, and Other Woody Plant Maintenance-Standard Practices (Support Systems a. Cabling, Bracing, and Guying)* (A300, Part 3-2000). National Arborist Association, Manchester, NH.

City of New London, *Forestry Specifications Manual*. New London Tree Board, 2005. New London, WI. 28 pp.

Council of Tree and Landscape appraisers, 2000. *Guide for Plant Appraisal*. International Society of Arboriculture, Champaign, IL. 143 pp.

Smiley, E.T. and S. Lilly. 2001. *Best Management Practices Tree Support Systems: Cabling, Bracing and Guying*. International Society of Arboriculture, Champaign, IL. 30 pp.

Bedker, Peter J., O’Brien, Joseph G., and Mielke, Manfred M. *How to Prune Trees*. USDA Forest Service. Northeastern Area State and Private Forestry, 12 pp.

APPENDIX A – RECOMMENDED TREE SPECIES TO PLANT

Species	Height (feet)	Width (feet)
Deciduous		
Alder, European black [Alnus glutinosa]	15+	15+
Apricot, Manchurian [Prunus armeniaca var. Mandshurica]	15+	15+
Hawthorn, thornless cockspur [Crataegus crusgalli var. inermis]	15+	20+
Hornbeam, American [Carpinus caroliniana]	15+	15+
Lilac, Japanese tree [Syringa reticulata]	15+	12+
Serviceberry, Allegheny [Amelanchier laevis]	15+	10+
Buckeye, Ohio [Aesculus glabra]	20+	20+
Cherry, Amur choke [Prunus maackii]	20+	18+
Hawthorn, downy [Crataegus mollis]	20+	20+
Maackia, Amur [Maackia amurensis]	20+	20+
Serviceberry, downy [Amelanchier arborea]	20+	10+
Mountain Ash, Korean [Sorbus alnifolia]	25+	20+
Pear, Ussurian [Pyrus ussuriensis]	25+	25+
Elm, Jacan Japanese [Ulmus japonica selection]	30+	25+
Hophornbeam (Ironwood) [Ostrya virginiana]	30+	25+
Linden, littleleaf [Tilia cordata]	35+	20+
Birch, paper [Betula papyrifera]	40+	20+
Birch, river [Betula nigra]	40+	30+
Catalpa, northern [Catalpa speciosa]	40+	20+
Cherry, black [Prunus serotina]	40+	20+
Corktree, 'Macho' [Phellodendron amurense 'Macho']	40+	40+
Corktree, 'His Majesty' [Phellodendron amurense 'His Majesty']	40+	35+
Elm, 'Cathedral' [Ulmus pumila hybrid]	40+	40+
Elm, 'Patriot' [Ulmus wilsoniana hybrid]	40+	40+
Elm, 'New Horizon' [Ulmus pumila hybrid]	40+	40+
Ginkgo [Ginkgo biloba]	40+	20+
Hackberry [Celtis occidentalis]	40+	30+
Honeylocust, thornless [Gleditsia triacanthos var. inermis]	40+	40+
Linden, Crimean [Tilia x euchlora]	40+	20+
Magnolia, cucumbertree [Magnolia acuminata]	40+	25+
Oak, bicolor [Quercus bicolor]	40+	30+

Oak, northern pin [Quercus ellipsoidalis]	40+	25+
Coffeetree, Kentucky [Gymnocladus dioicus]	50+	30+
Coffeetree, 'Espresso' [Gymnocladus dioicus 'Espresso']	50+	35+
Coffeetree, 'Stately Manor' [Gymnocladus dioicus 'Stately Manor']	50+	30+
Hickory, bitternut [Carya cordiformis]	50+	30+
Linden, American [Tilia americana]	50+	25+
Linden, Redmond [Tilia hybrid]	50+	25+
Oak, white [Quercus alba]	50+	40+
Oak, bur [Quercus macrocarpa]	50+	50+
Oak, black [Quercus velutina]	50+	30+
Oak, red [Quercus rubra]	50+	40+
Elm, 'Accolade' [Ulmus japonica hybrid]	60+	40+
Elm, 'Princeton' [Ulmus americana 'Princeton']	60+	40
Hickory, shagbark [Carya ovata]	60+	20+
Conifer		
Cedar, white [Thuja occidentalis]	15+	6+
Cedar, red [Juniperus virginiana]	15+	6+
Fir, balsam [Abies balsamea]	40+	20+
Fir, white [Abies concolor]	30+	20+
Fir, fraser [Abies fraseri]	30+	20+
Douglas-Fir [Pseudotsuga menziesii var. glauca]	40+	20+
Larch, American [Larix laricina]	40+	20+
Larch, European [Larix decidua]	40+	20+
Larch, Japanese [Larix kaempferi]	40+	20+
Larch, Siberian [Larix sibirica]	40+	20+
Pine, eastern white [Pinus strobus]	40+	20+
Pine, jack [Pinus banksiana]	35+	25+
Pine, red (Norway) [Pinus resinosa]	40+	25+
Pine, ponderosa [Pinus ponderosa]	40+	25+
Pine, Scots [Pinus sylvestris]	30+	25+

Please contact the City regarding approved trees to be planted in the Natural Resource Corridor or Conservation Easements.

**CALL GOPHER STATE ONE BEFORE YOU DIG
TO HAVE UNDERGROUND UTILITIES LOCATED**

651-454-0002

APPENDIX B - UNDESIRABLE SPECIES

<u>Scientific Name</u>	<u>Common Name</u>	<u>Problem(s) or Limitation(s)</u>
<i>Acer negundo</i>	Boxelder	Weak wooded, female attracts the Boxelder bug.
<i>Acer saccharinum</i>	Silver Maple	Weak wooded, susceptible to storm damage, aggressive root system
<i>Alianthus altissima</i>	Tree of Heaven	Weak wooded
<i>Eleagnus angustifolia</i>	Russian olive	Invasive
<i>Populus alba</i>	White Poplar	Roots block sewers, weak wooded, cotton type seeds
<i>Populus nigra italica</i>	Lombardy Poplar	weak wooded
<i>Rhamnus pseudacaia</i>	Buckthorn	Invasive
<i>Robina</i> spp.	Black Locust	Shallow rooted, borers
<i>Ulmus pumila</i>	Siberian Elm	Weak wooded
<i>Ulmus Americana</i>	American Elm	Disease prone (Dutch Elm)
<i>Fraxinus</i>	Ash (All Species)	Disease prone (EAB)

APPENDIX C- RISK EVALUATION GUIDELINES
(Companion guide to the Community Tree Risk Evaluation Form)

PROBABILITY OF FAILURE: 1-4 points

1. Low: some minor defects present:

- Minor branch/ crown dieback
- Minor defects or wounds

2. Moderate: several moderate defects present

- Stem decay or cavity within safe shell limits: shell thickness > 1 inch of sound wood for each 6 inches of stem diameter
- Crack(s) without extensive decay
- Defect(s) affecting 30-40% of the tree's circumference
- Crown damage/breakage: hardwoods up to 50%; pines up to 30%
- Weak branch union: major branch or co-dominant stem has included bark
- Stem girdling roots: <40% tree's circumference with compressed wood
- Root damage: < 40% of roots damaged within the CRR

3. High: multiple or significant defects present:

- Stem decay or cavity at or exceeding shell safety limits: shell thickness < 1 inch of sound wood for each 6 inches of stem diameter
- Cracks, particularly those in contact with the soil or associated with other defects
- Defect(s) affecting > 40% of the tree's circumference
- Crown damage/breakage: hardwoods >50%; pines >30%
- Weak branch union with crack or decay
- Girdling roots with > 40% of tree's circumference with compressed wood
- Root damage: > 40% of roots damaged within the CRR.
- Leaning tree with recent root breakage or soil mounding, crack or extensive decay
- Dead tree: standing dead without other significant defects

4. Extremely High: multiple and significant defects present; visual obstruction of traffic signs/lights or intersections:

- Stem decay or cavity exceeding shell safety limits and severe crack
- Cracks: when a stem or branch is split in half
- Defect(s) affecting > 40% of the tree's circumference or CRR and extensive decay or crack(s)
- Weak branch union with crack and decay
- Leaning tree with recent root breakage or soil mounding and a crack or extensive decay - Dead branches: broken (hangers) or with a crack
- Dead trees: standing dead with other defects such as cracks, hangers, extensive decay, or major root damage
- Visual obstruction of traffic signs/lights or intersections
- Physical obstruction of pedestrian or vehicular traffic

SIZE OF DEFECTIVE PART (S): 1-3 points

1. Parts less than **4** inches in diameter
2. Parts from **4 to 20** inches in diameter
3. Parts **greater than 20** inches in diameter

PROBABILITY OF TARGET IMPACT: 1-3 points

1. Occasional Use:

- Low use roads and park trails; parking lots adjacent to low use areas; natural areas such as woods or riparian zones; transition areas with limited public use; industrial areas.

2. Intermediate Use:

- Moderate to low use school playgrounds, parks, and picnic areas; parking lots adjacent to moderate use areas; secondary roads (neighborhoods) and park trails within moderate to high use areas; and dispersed campgrounds.

3. Frequent Use:

- Emergency access routes, medical and emergency facilities and shelters, and handicap access areas; high use school playgrounds, parks, and picnic areas; bus stops; visitor centers, shelters, and park administrative buildings and residences; main thoroughfares and congested intersections in high use areas; parking lots adjacent to high use areas; interpretive signs, kiosks; scenic vistas; and campsites (particularly drive-in).

OTHER RISK FACTORS: 0-2 points

- This category can be used if professional judgment suggests the need to increase the risk rating.
- It is especially helpful to use when tree species growth characteristics become a factor in risk rating. For example, some tree species have growth patterns that make them more vulnerable to certain defects such as weak branch unions (silver maple) and branching shedding (beech).
- It can also be used if the tree is likely to fail before the next scheduled risk inspection.

Table 1. Defect Codes

<u>Code</u>	<u>Defect</u>
D	Decay
CR	CRack
Root	Root Problems
RSG	Stem Girdling
RS	Severed
RPD	Planting Depth (too deep)
RGC	Grade Change
RSB	Sidewalk Buckling
WBU	Weak Branch Union
CA	CAncer
PTA	Poor Tree Architecture
PTA:LT	Leaning Tree
PTA:TT	Topped Tree
EE	Excessive Epicormics
DEAD	DEAD tree, tops or branches
VO	Visible Obstruction
PO	Physical Obstruction

Table 2. Corrective Action(s) Codes

Prune	
PD	Deadwood
PW	Weakwood (defective part(s))
PC	for Clearance
PT	to Thin crown or reduce crown weight
PR	to Reduce crown height
Target	
TM	Move
TEV	Exclude Visitors from Target Area
CB	Cable/Bracing
CWT	Convert to Wildlife Tree
RT	Remove Tree
Monitor	Monitor regularly
NA	No Action Required

Location: _____ Date: _____ Inspector(s): _____

[illegible]

* This is an *example* form adapted from various sources by the US Forest Service, Northeastern Area Hazard Tree Training Team. The US Forest Service assumes no responsibility for conclusions derived from the use of this form. Managers should construct their own forms, based on need and experience.



CITY OF SHAKOPEE
SHADE TREE DISEASE/SHADE TREE PEST
TREE INSPECTION FORM

DATE: _____ TREE INSPECTOR: _____

TREE TAG NUMBER
(PID#): _____

PROPERTY
ADDRESS: _____

The City Tree Inspector inspected _____ trees within your property. Based on this inspection the following has been determined:

- ☐ One or more trees within your property have been diagnosed as diseased, dying or containing a shade tree pest and are required to be removed within _____ days of this notice according to Minnesota Department of Agriculture regulations and Section 10.70 of the City Code.

PLEASE FILL OUT AND RETURN THE ATTACHED POSTCARD WITHIN FIVE DAYS INDICATING HOW YOU WISH TO HANDLE THE REMOVAL OF YOUR TREE CONTAINING A SHADE TREE DISEASE/SHADE TREE PEST.

REMOVAL OF THE MARKED TREES WITHIN YOUR PROPERTY WILL COST
_____.

PLEASE SEE THE ATTACHMENTS FOR PAYMENT OPTIONS AND ADDITIONAL INFORMATION.

- ☐ Quantities of _____ wood were found on your property. This situation is capable of harboring the beetles or insects that can infect other trees. This wood must be destroyed in a heating appliance, debarked or hauled for disposal 20 days following the date of this notification.
- ☐ We have marked your boulevard tree for removal. The City of Shakopee will do the removal work at no cost to you.
- ☐ Other:

If you have any questions please call the City of Shakopee Director of Parks, Recreation and Natural Resources at (952) 233-9500.

APPENDIX D- Tree, Shrub and Bush Planting Permit Application



CITY OF SHAKOPEE
129 SOUTH HOLMES STREET SHAKOPEE MN 55379
Phone (952) 233-9300 Fax (952) 233-3801
www.ci.shakopee.mn.us

Tree, Shrub and Bush Permit Application

A permit is required to plant or place trees, shrubs or bushes in a City easement area or sight triangle or on City-owned or managed property

Site Address: _____

Applicant Name: _____

Address: _____

City: _____ State: _____ Zip: _____

Day Phone: (____) _____ Cell Phone: (____) _____

Proposed Planting Location (Check Box):

- | | |
|---|--|
| <input type="checkbox"/> Right-of-way (Boulevard) | <input type="checkbox"/> Conservation Easement |
| <input type="checkbox"/> Park and Open Space | <input type="checkbox"/> Drainage & Utility Easement |

Type of Species Planting (Check Box):

<u>Species</u>	<u>Quantity</u>	<u>Size</u>	<u>(Scientific Name)</u>
<input type="checkbox"/> Hackberry	_____	_____	(<i>Celtis occidentalis</i>)
<input type="checkbox"/> Thornless Honeylocust	_____	_____	(<i>Gleditsia triacanthos</i> var. <i>intermis</i>)
<input type="checkbox"/> American Linden	_____	_____	(<i>Tilia americana</i> var. <i>Redmond</i>)
<input type="checkbox"/> Freeman Maple	_____	_____	(<i>Acer x freemanii</i> 'Jeffersred')
<input type="checkbox"/> Discovery Elm	_____	_____	(<i>Ulmus davidiana</i> var. <i>japonica</i>)
<input type="checkbox"/> Bur oak	_____	_____	(<i>Quercus macrocarpa</i>)
<input type="checkbox"/> Red oak	_____	_____	(<i>Quercus rubra</i>)
<input type="checkbox"/> Northern pin oak	_____	_____	(<i>Quercus ellipsoidalis</i>)
<input type="checkbox"/> River birch	_____	_____	(<i>Betula nigra</i>)
<input type="checkbox"/> Bitternut hickory	_____	_____	(<i>Carya cordiformis</i>)
<input type="checkbox"/> Shagbark hickory	_____	_____	(<i>Carya ovata</i>)
<input type="checkbox"/> Black walnut	_____	_____	(<i>Juglans nigra</i>)
<input type="checkbox"/> Eastern white pine	_____	_____	(<i>Pinus strobes</i>)
<input type="checkbox"/> White spruce	_____	_____	(<i>Picea glauca</i>)
<input type="checkbox"/> Black Hills Spruce	_____	_____	(<i>Picea glauca</i> var. <i>densata</i>)
<input type="checkbox"/> Eastern Redcedar	_____	_____	(<i>Juniperus virginiana</i>)
<input type="checkbox"/> Other: Name and	_____	_____	

Quantity: _____

PLEASE FILL OUT BACKSIDE OF APPLICATION

ACKNOWLEDGEMENT OF OWNER

I hereby acknowledge the following:

- a) **I have reviewed and understand the requirements of the Shakopee Tree, Shrub and Bush Planting and Placement Policy and Standards, the Shakopee Tree and Shrub Maintenance Standards, and the Shakopee Diseased Tree Removal Guideline.**
- b) **I agree to install my permitted tree, shrub or bush in the approved location in accordance with these standards and policies.**
- c) **I agree to indemnify, defend and hold the City of Shakopee harmless with respect to any injury or property damage caused by my work within the easement area or on City property in connection with this permit.**
- d) **Pursuant to Section 7.18 of the City Code I understand that City staff may require that these items placed within an easement area be removed at my expense at any time, even these items that have been previously approved by the City and a permit has been issued. If I do not remove these items upon the request of the City or if an emergency situation exists, I understand that the City may remove these items for me and may charge me for any removal expenses that are incurred.**
- e) **I also understand that if the items are required to be removed, the City is not required to compensate me for the costs of the items. The City is also not required to replace any of the items.**

Signature of Applicant

Date

RESIDENTS MUST CONTACT GOPHER ONE STATE PRIOR TO DIGGING OR PLANTING TO HAVE UNDERGROUND UTILITIES LOCATED

651-454-0002

Office Use Only:

Public Works: Approve/Deny By: _____ Date: _____

Natural Resources: Approve/Deny By: _____ Date: _____

SPUC: Approve/Deny By: _____ Date: _____

(SPUC Approval Necessary as Determined by Public Works or Natural Resources)

Installation Inspection By: _____ Date: _____

GPS Data Collected (Circle): (Yes) (No)

GPS Coordinates Obtained (Circle): (Yes) (No)

Latitude: _____ Longitude: _____

